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10/593,923

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Jakob Maier

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EXAMINER

O'HARA, BRIAN M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,923	Applicant(s) MAIER ET AL.	
	Examiner Brian M. O'Hara	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 80-138 is/are pending in the application.
- 4a) Of the above claim(s) 113-123 and 131-138 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 80-112 and 124-130 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 80-82, 90-94, 98-112, and 124-130 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Lingen et al. (WO 02/15676 A1) in view of Maier, Jr. (WO 02/069696 A1).**

3. Regarding **Claim 80**, Van der Lingen et al. discloses a retaining device (1) for the manual removal of teat cups (6) with a fastening device (2) for fixing the retaining device at a predetermined milking position (as shown in Fig. 1), the retaining device (1) being formed to hold each of a multiple number of teat cups (6, See Fig. 2) in a fixed position relative to the others during a first operational phase (Fig. 2), and to allow manual access to each of the retained teat cups (6) in such a way that, during a second operational phase (Fig.1), each teat cup (6) is manually movable (See arrow in Fig. 1; teat cup could also be moved manually) relative to the retaining device (1) and at least one additional teat cup (6) in more than one direction.

Van der Lingen et al. further discloses a stimulation mechanism (robotic arm shown in Fig. 1) but does not disclose it using a rhythmic movement. Maier, Jr. teaches a retaining device, wherein the retaining device (200) furthermore has a stimulation mechanism (206) that is formed to act mechanically (mechanical attachment of 206 and

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203 transmits vibrations to all the hoses shown in Fig. 2) on at least one milk hose (205) that connects a teat cup (201) to the retaining device for inciting a rhythmic movement (206 can incite a variety of vibrations) to the teat cup while it is maintained in contact with and attached to a cow's teat ("transfer the length contraction" See Column 10, Lines 6-25).

At the time of invention, it would have been obvious to add the stimulation mechanism of Maier, Jr. to the retaining device of Van der Lingen et al. The motivation for doing so would have been to provide pre-stimulation to the teats; the pre-stimulation being highly controllable (since it's a separate system as opposed to pulsing the suction) and would not require the use of pulsed suction directly to the teats.

4. Regarding **claims 81 and 82**, Van der Lingen et al. discloses the retaining device wherein: the retaining device has a container (bottom part of 7 containing elements 8) in which the teat cups are introduced at least partially during the first operational phase; furthermore comprises a guide device (14 and 15) for guiding milk hoses (13) during the movement of the teat cups (6) relative to the retaining device.

5. Regarding **claims 90-94** Van der Lingen et al. discloses the retaining device wherein: the fastening device (2) is attached to a milking parlor support (See cross beams in the background of Fig.1); the fastening device can be adjusted in such a way that the longitudinal axes of the milking cups are arranged virtually horizontally (See teat cups in Fig. 1); the fastening device is formed in such a way that the retaining device can be moved from a first position (via 10 and 12, Shown in Fig.1), which corresponds to the first operational phase, into at least a second position for cleaning at

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least an area of the teat cups (Cleaning position shown in Fig. 2); at least an area of the retaining device is manufactured of plastic (the use of plastic is an obvious design choice since it is easy to clean, Additionally Maier, Jr. teaches the use of plastic, element 350), said area holding the teat cups; and which furthermore has one or more cleaning connectors (See pipes running from elements 17).

6. Regarding **claims 98-100**, Van der Lingen et al. discloses a cleaning device (9+17) which can be moved from one position to a second position (via 10), the cleaning device has a sealing element (17); the sealing element having at least one nozzle element ("Water and air conduits" Page 5, Line 32).

7. Regarding **claims 101 and 102**, the apparatus of Van der Lingen et al. inherently has a power supply unit that is pneumatically driven in order to power the cylinders 10 and 12.

8. Regarding **Claims 103-106**, Maier, Jr. discloses a milk temperature sensor; a drive element (306) and actuator element (307) connected to a milk hose (via the teat cup); and a control mechanism (602).

9. Regarding **claims 107-112** Van der Lingen et al. discloses a holding area (8) for the teat cups; hose sections (13) which are provide for connection to the teat cups (6) having a guide section (section which must curve over wheels 14 and 15); the hose section having a milk hose and a control hose (in order to provide modern suction element 13 of Van der Lingen et al. would inherently have control and milk hoses); a device for pulling during post milking ("tensioning means" Page 5, Line 29); and a multiple number of teat cups (6) and connection hoses (13).

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10. Regarding **Claims 124-130**, Van der Lingen et al. further discloses a milking parlor (4); a support (top portion of element 7); multiple number of teat cups (6); a fastening device (11) which can pivot into a milking and cleaning/disinfection position (can be pivoted to many positions via 12); the container has a device for disinfection (17); and further comprises a hose guide (14 and 15).

11. **Claims 83-89, 95-97, and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Lingen et al. and Maier, Jr. as applied to claim 80 above, and further in view of Nordegren et al (US Patent 4,011,838 A).** Van der Lingen et al. and Maier, Jr. disclose the retaining device as described above including individually retracting a milk hose when a milk flow sensor sees a minimum amount of milk flow (See Page 5, Lines 24-29 of Van der Lingen et al.) but do not disclose stopping the vacuum. Nordegren et al. teaches a retaining device (2) further comprising a controllable vacuum switching mechanism (16) that is formed to apply an operating vacuum to each of the teat cups in a controllable manner; wherein the vacuum switching mechanism (16) has: a control switch (44-47) for each of the teat cups; an operating mechanism that switches the operating vacuum depending on the distance of the teat cup from the retaining device (i.e. off when inside the container); comprises a turn-off device (16 controls 44-47 based on information from 14) that is formed to decouple a teat cup from the operating vacuum individually and automatically in the case of a loss of the milking vacuum in that teat cup. At the time of invention, it would have been obvious to one of ordinary skill in the art to supply the retaining device of Van der Lingen et al. and Maier, Jr. with the controllable vacuum mechanism of Nordegren

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et al. to more efficiently control pressure losses in the system if a teat cup becomes dislodged.

12. Regarding **claims 87-89, 95-97, and 103**, the Van der Lingen et al. reference eludes to the fact that the milking box is hooked up to a milking installation, by showing hoses and lines that inherently run to some sort of milk collection area, but does not disclose the specifics of the connections.

13. Regarding **claims 87-89** Nordegren et al. further discloses several connectors that make possible a connection to one or more milk hoses (12) that connect the retaining device to a milking installation (12 runs to a milking installation) and to a vacuum line (34) of the milking installation; hose sections (portions between 4-7 and 12), wherein one end of each is hose section is connected to a connector (inherently it is connected via a connector) and wherein the other end of each hose section can be connected to a teat cup (4-7); and wherein each hose section has at least one control hose section (48-51), which can be connected on one end to a teat cup and on the other end to a corresponding control connector.

14. Regarding **claims 95-97**, Nordegren et al. further discloses controllable valves (44-47 and 36-39), which can switch the vacuum to one of the teat cups (via 48-51), and can be operated electronically (52-55).

15. Regarding **Claims 103**, Nordegren et al. further discloses a sensor (14).

16. At the time of invention, it would have been obvious to one of ordinary skill in the art to provide the retaining device of Van der Lingen et al. and Maier, Jr. with the hose sections including a sensor, valves, and vacuum lines of Nordegren et al. The

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motivation for doing so would have been to hook up the retaining device of Van der Lingen et al. and Maier, Jr. to a modern milking facility for the purposes of gathering the milk from the cows.

Response to Arguments

17. Applicant's arguments filed 08/05/2010 have been fully considered but they are not persuasive. On page 29 of the remarks, Applicant argues that the Maier reference does not teach the mechanically acting on a milk hose. In the embodiment shown in Fig. 2 of Maier, Jr. et al. the valve mechanism 206 transmits vibrations to the collecting piece 203 which is connected to the milking hoses 205. Thus any vibrations made by 206 also act on the milking hoses.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. O'Hara whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy D. Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy D. Collins/
Supervisory Patent Examiner, Art
Unit 3644

/B. M. O./

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